

ABSTRACT OF THE INVENTION

Security key synchronization is maintained between nodes in an optical communications system utilizing out-of-band signaling to indicate that a new key is being used to encrypt subsequent information blocks at the transmitting point and that the new key should be used to decrypt subsequent information blocks at the receiving point. A switch-to-new-key code can be selected from a group of unused codes in an eight bit to ten bit encoding scheme. The switch-to-new-key code can replace an idle code that is used to create sufficient spacing between information blocks. Receipt of the switch-to-new-key code indicates that the new key is being used to encrypt subsequent information blocks at the transmitting point and triggers a switch to the new key for decrypting subsequent information blocks at the receiving point.